

Remarks

The Requirement for Restriction mailed January 28, 2008 requires Applicant to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

The application contains claims 1-89 including three independent claims. Independent claims 1 and 67 recite methods of producing hydrogen that use certain hydrides and hydroxides. In these methods a portion of the hydride content is reacted with water which may be part of a hydrated hydroxide. A second portion of the hydride is reacted with a hydroxide.

Independent claim 72 recites a hydrogen storage composition that may be used in the method embodiments of the invention. The hydrogen storage composition has a hydrogenated state and a dehydrogenated state. In the hydrogenated state the composition comprises a hydride and a hydrated hydroxide.

The Examiner states that the application contains dependent claims directed to patentably distinct species. The Examiner lists several first hydride materials as species and several second hydroxide materials as species.

With respect to claims 1-71, hydrides and hydroxides are specified only as different hydrogen storage material components that are usable in method claims. The hydrides and hydroxides are recited as materials used alone or in mixtures. The hydroxides may be hydrated. The Examiner calls these different materials "species," but the mere recitation of such hydrides and hydroxides as usable in method claims does not properly justify the imposed restriction requirement. The respective hydrides are usable alone and in mixtures in the claimed methods. The respective hydroxides are also usable alone and in mixtures. Each hydride or hydroxide (whether hydrated or not) may have one or more cations, and a combination of hydride and hydroxide may comprise the same cation(s) or different cations. While applicants believe and understand the individual hydrides and hydroxides to be patentably distinct, the individual hydrides and hydroxides (and the cations they incorporate) are interchangeable in the practice of the method invention.

Claims 72-89 recite hydrogen storage compositions that use hydrides and hydrated hydroxides. Again, each hydride or hydroxide (whether hydrated or not) may be a complex compound comprising one or more cations. Each hydride or hydroxide may comprise a mixture

of hydrides with different cations and/or a mixture of hydroxides with different cations. And a combination of hydride and hydroxide may comprise the same cation(s) or different cations. While the “species” may be used independently they are also interchangeable

Under 35 U.S.C. 121, a patent application may be restricted to a single invention if two or more distinct and independent inventions are claimed in one application. But claims 1-89 of this application recite hydrogen production methods and hydrogen storage compositions in which the species may be used interchangeably. It is believed that the respective species are patentably distinct. Since the respective hydrides, hydroxides and hydrated hydroxides may comprise interchangeable species, it does not seem that distinct and independent inventions are claimed.

The Examiner recognizes that these independent and generic claims do not recite distinct and independent inventions. Instead, the Examiner states that certain dependent claims recite species of first hydrides (e.g., claim 26) and species of second hydroxides (e.g., claim 27). The Examiner states that the claimed species are independent or distinct because “the claimed species have a materially different design.” Applicants urge that their claimed hydrides and hydroxides are patentably distinct, but that they do not have a materially different design in the sense of the United States patent laws and practice.

MPEP § 806.05(j) pertains to support for a restriction requirement between two or more related process inventions. This section states that inventions are distinct if each of three separate tests (A)-(C) are met. But two of the tests are not met in method claims 1-71.

(A) the inventions as claimed must not overlap in scope, i.e., they are mutually exclusive. But each of claims 1 and 67 permit the inclusion of more than one hydride species and more than one hydroxide species in the practice of the process invention. These claimed inventions overlap because more than one hydride and or hydroxide may be used in each process.

(C) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. This test doesn’t apply to applicants’ claims 1-71. The respective hydrides and hydroxides may be used as mixtures in the claimed methods.

The same argument applies to hydrogen storage composition claims 72 -89.

The hydrides and hydrated hydroxide species are interchangeable in the ways explained above. There does not seem to be justification for a restriction requirement based on grounds that the identified species, whether in method claims or composition claims, have a materially different design.

There is no proper basis for separate prosecution of each hydride and hydroxide because the result could be the issuance of many patents where one patent should result. It is respectfully requested that the Requirement of Restriction to a single disclosed hydride and hydroxide species be reconsidered and withdrawn.

In conformance with the Examiner's requirement under 35 U.S.C. 121, applicants provisionally elect to initially prosecute method claims and composition claims using hydrides containing lithium as one of the hydride's cationic species or claims using hydroxides containing lithium as one of the hydroxides cationic species (but not requiring both the hydride and hydroxide to contain lithium). It appears that claims 1-31, 44-49, 54-59, 61, 63-86, and 88 read on methods compositions using a lithium cation containing hydride or a lithium cation containing hydroxide or hydrated hydroxide.

In the event the Examiner makes this restriction requirement final and requires that both the hydride and hydroxide comprise a lithium cation, dependent claims 13, 31, 44-47, 56, 58, 59, 85, and 86 may be excluded from the above specified claims.

The Commissioner is hereby authorized and respectfully requested to charge any deficiencies or credit any overpayments associated with this communication to Deposit Account No. 070960.

Respectfully Submitted,

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